AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in this application

1. (Currently amended) A method of characterizing cells in a subclass of dendritic cells or precursors thereof in a biological sample, said method comprising:

(i) placing the sample in contact with ~~one~~ two or more immunointeractive molecules for a time and under conditions sufficient for one or more immunogen-immunointeractive molecule complexes to form, wherein said immunointeractive molecules are directed against one or more dendritic cell immunogens including an immunointeractive molecule for CD45 immunogen and one or more non-dendritic cell immunogens;

(ii) detecting the presence of ~~one or more~~ dendritic cell immunogen-immunointeractive molecule complexes and the absence of one or more non-dendritic cell immunogen-immunointeractive molecule complexes;

(iii) performing an analysis of the cells of the subclass of dendritic cells based at least in part on the presence of ~~one or more~~ predetermined dendritic cell immunogen-immunointeractive molecule complexes including CD45 immunointeractive complexes and the absence of one or more predetermined non-dendritic cell immunogen-immunointeractive molecule complexes.

wherein the presence of ~~one or more~~ predetermined dendritic cell immunogen-immunointeractive molecule complexes and the absence of one or more predetermined non-dendritic cell immunogen-immunointeractive molecule complexes characterizes a subclass of dendritic cells or precursors thereof.

2. (Original) A method according to claim 1 wherein performing the analysis of cells further comprises:

(a) isolating dendritic cells or precursors thereof based at least in part on morphological characteristics to dendritic cells;

(b) isolating dendritic cells or precursors thereof based at least in part on the absence of expression of non-dendritic cell immunogens from the cells in the subclass created from step (a);

(c) isolating dendritic cells or precursors thereof based at least in part on the presence of expression of dendritic cell immunogens from the cells in the subclass created in step (a,b);

(d) optional steps of isolating cells or precursors thereof based in part on the presence of dendritic cell immunogens from previous subclasses (a,b,c);

(e) calculating the number of cells in the subclass of dendritic cells or precursors thereof created in step (c) or (d)

3. (Original) A method of diagnosis by characterizing cells in a subclass of dendritic cells or precursors thereof in a biological sample, said method comprising:

(i) placing the sample in contact with one or more immunointeractive molecules for a time and under conditions sufficient for one or more immunogen-immunointeractive molecule complexes to form, wherein said immunointeractive molecules are directed against one or more dendritic cell immunogens and one or more non-dendritic cell immunogens;

(ii) detecting the presence of one or more dendritic cell immunogen-immunointeractive molecule complexes and the absence of one or more non-dendritic cell immunogen-immunointeractive molecule complexes;

(iii) differentiating the subclass of dendritic cells based at least in part on the presence of one or more predetermined dendritic cell immunogen-immunointeractive molecule complexes and the absence of one or more predetermined non-dendritic cell immunogen-immunointeractive molecule complexes.

wherein said differentiation further comprises:

(a) isolating dendritic cells or precursors thereof based at least in part on morphological characteristics to dendritic cells;

(b) isolating dendritic cells or precursors thereof based at least in part on the absence of expression of non-dendritic cell immunogens from the cells in the subclass created from step (a);

(c) isolating dendritic cells or precursors thereof based at least in part on the presence of expression of dendritic cell immunogens from the cells in the subclass created in step (a,b);

(d) optional steps of isolating cells based in part on the presence of dendritic cell immunogens from previous subclasses (a,b,c);

(e) calculating the number of cells in the subclass of dendritic cells or precursors thereof created in step (c) or (d); and

(f) comparing the number of cells in the subset of dendritic cells or precursors thereof calculated from the biological sample to an acceptable number of cells found in an age-matched non-diseased patient.

wherein the comparison of the number of cells in the subset of dendritic cells calculated from the biological sample to an acceptable number of cells found in an age-matched non-diseased patient is a measure of the disease state.

4. (Original) A method according to claim 1 to 3 wherein the biological sample is derived from an animal.

5. (Original) A method according to claim 4 wherein the animal is a human.

6. (Original) A method according to claim 5 wherein the immunointeractive molecule is an antibody or functional equivalent thereof.

7. (Original) A method according to claim 6 wherein the functional equivalent is a derivative, fragment, homolog, analog or chemical equivalent of the antibody.

8. (Original) A method according to claim 5 wherein the one or more dendritic cell immunogens are selected from the group comprising HLA-DR, CD123, CD11c, CD1b/c BDCA2, BDCA3, BDCA4, CD16, CD83, CD45, CD40, CMRF-44 and CMRF-56.

9. (Original) A method according to claim 5 wherein the dendritic cell immunogen is HLA-DR.

10. (Original) A method according to claim 5 wherein the dendritic cell immunogen is CD123.

11. (Original) A method according to claim 5 wherein the dendritic cell immunogen is CD11c.

12. (Original) A method according to claim 5 wherein the dendritic cell immunogen is CD1b/c.

13. (Original) A method according to claim 5 wherein the dendritic cell immunogen is BDCA2.

14. (Original) A method according to claim 5 wherein the dendritic cell immunogen is BDCA3.

15. (Original) A method according to claim 5 wherein the dendritic cell immunogen is

BDCA4.

16. (Original) A method according to claim 5 wherein the dendritic cell immunogen is CD16.

17. (Original) A method according to claim 5 wherein the dendritic cell immunogen is CD83.

18. (Canceled)

19. (Original) A method according to claim 5 wherein the dendritic cell immunogen is CD40.

20. (Original) A method according to claim 5 wherein the dendritic cell immunogen is CMRF-44.

21. (Original) A method according to claim 5 wherein the dendritic cell immunogen is CMRF-56.

22. (Original) A method according to claim 5 wherein the one or more non-dendritic cell immunogens are selected from the group comprising CD3, CD19, CD14, CD56, CD11b and CD34.

23. (Original) A method according to claim 5 wherein the non-dendritic cell immunogen is CD3.

24. (Original) A method according to claim 5 wherein the non-dendritic cell immunogen is CD19.

25. (Original) A method according to claim 5 wherein the non-dendritic cell immunogen is CD14.

26. (Original) A method according to claim 5 wherein the non-dendritic cell immunogen is CD56.

27. (Original) A method according to claim 5 wherein the non-dendritic cell immunogen is CD11b.

28. (Original) A method according to claim 5 wherein the non-dendritic cell immunogen is CD34.

29. (Original) A leukocyte population isolated according to the method of claims 1 to 28 that is $CD45^{+}CD40^{+}CD11c^{-}CD123^{-}$.